



Division of Fisheries & Wildlife

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Rare Species Habitat Assessments Draft Guidelines (dated 10/21/04)¹

As part of the rare species regulatory review process, the Natural Heritage and Endangered Species Program (NHESP) may request that the project proponent provide a Rare Species Habitat Assessment. This assessment will be used to help:

1. determine whether or not a proposed project will adversely affect the actual Resource Area habitat of rare wildlife (MA Wetlands Regulations, 310 CMR 10.00);
2. determine whether or not a proposed project will result in a “take” of state-listed rare species (MA Endangered Species Regulations, 321 CMR 10.00);
3. evaluate the level of impact to rare species habitat during the Conservation and Management Permit application process (321 CMR 10.04(3)(b));
4. identify approaches to avoiding or minimizing project-related impacts to state-listed rare species and their habitats.

Prior to the initiation of the assessment the NHESP will provide guidance on the specific state-listed species that will be the subject of the habitat assessment. Rare species habitat assessments must be conducted by qualified wildlife biologists or botanists who have direct experience working with the species or taxa that are the subject of the habitat assessment. As part of the assessment report, resumes for each biologist or botanist involved in an assessment should be submitted to the NHESP, along with a description of their experience with the species for which the assessment is being performed. As we will reject habitat assessments that are not conducted by qualified individuals, we encourage the proponent to check with the NHESP prior to initiation of the assessment if there are any questions about qualifications. The habitat assessment should cover the entire project site, and not just the portion of the project site within the proposed project “footprint.” In addition, the habitat assessment must consider the landscape context of the project site, and identify and map off-site habitat features that may be of importance to rare species.

A rare species habitat assessment should consist of the following key elements:

1. **Cover type map**
2. **Habitat map**
3. **Existing conditions narrative**
4. **Impact assessment**

¹ Please check www.nhesp.org for updated guidelines

1. Cover type map – Upland and wetland portions of the project site should be subdivided into coarse land-use land-cover types based upon dominant vegetation. The DEP Wetlands Classification as represented in the MassGIS DEP Wetlands coverage provides one suitable mapping system as does the Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al.). Hydrology of wetlands and ponds should be described, as should the hydroperiod of any vernal pools. Upland areas should be classified into similar coarse cover types (e.g., northern hardwoods, central hardwoods, conifers, mixed forest, shrubland, grassland/meadow, etc...). Certified and Potential Vernal Pools (see MassGIS) should be mapped, including potential vernal pools observed in the field that do not appear on the MassGIS Potential Vernal Pools coverage.

2. Habitat map – Portions of the project site should be classified based upon their ability to provide specific habitat functions. Depending upon the species being considered, habitat functions that should be mapped will include potential nesting, breeding, feeding, migratory, overwintering, estivating, and growing (plants) habitats. Some portions of the site may have multiple habitat functions (e.g., feeding and overwintering) and should be mapped accordingly. Important off-site habitat areas should also be mapped (e.g., turtle nesting areas, vernal pools for turtle feeding, *Ambystoma* breeding), as these features may influence the on-site patterns of habitat use (e.g., potential migration corridors). The habitat map should be overlaid on an ortho-photo of the project site (e.g. 2001 MassGIS color orthos).

3. Existing conditions narrative – This section should include:

- **Description of cover types** – Descriptions of dominant vegetation within each cover type, amount of each cover type, description of other important site features such as existing developed or disturbed areas (e.g., paved roads, gravel pits, areas of recent forest clearing).
- **Habitat analysis** – Methodology used to map habitat functions, literature citations, habitat descriptions and evaluation (e.g., discussion of variation in habitat quality), quantification of habitat features (e.g., how much feeding and nesting habitat occurs on site), consideration of landscape context of site relative to important off-site habitat features.

4. Impact Assessment – This section should include a quantification of the impacts of the proposed project to rare species habitat, including specific habitat functions. For example, what proportion of the nesting or feeding habitat will be altered by the proposed project, or will the project result in alterations to hydrology or water quality within rare species habitat? Potential impacts should be thoroughly evaluated and discussed. In addition, recommendations should be provided for protective measures or design changes that could avoid or minimize project impacts to rare species and their habitats, and mitigate such impacts.